

**Before the
Public Service Commission of South Carolina
Docket No. 2018-4-G**

**Annual Review of Purchased Gas Adjustment and Gas Purchasing Policies
of
Piedmont Natural Gas Company, Inc.**

**Testimony
of
Sarah E. Stabley**

**On Behalf Of
Piedmont Natural Gas Company, Inc.**



June 1, 2018

1 **Q. Please state your name and your business address.**

2 A. My name is Sarah E. Stabley. My business address is 4720 Piedmont Row
3 Drive, Charlotte, North Carolina.

4 **Q. By whom and in what capacity are you employed?**

5 A. I am employed by Piedmont Natural Gas Company, Inc., (“Piedmont” or the
6 “Company”), a wholly owned subsidiary of Duke Energy Corporation
7 (“Duke”), as the Director of Gas Supply, Scheduling & Optimization in
8 Duke’s Natural Gas Business Unit.

9 **Q. Please describe your educational and professional background.**

10 A. I graduated from Queens University of Charlotte in May of 2004 with a
11 Bachelor of Arts Degree in Business Administration. I joined the Company
12 as a Collector/Meter Reader in our field operations in December of 1998. In
13 March 2001 I took a position in Gas Control as a Schedule Confirmation
14 Analyst. In November 2004 I was hired as a Gas Supply Representative in
15 the Gas Supply department. In 2008 I was promoted to Manager of Gas
16 Supply & Wholesale Marketing. In 2013 I was promoted to Director of Gas
17 Supply, Scheduling & Optimization. In 2016 Piedmont was acquired by
18 Duke. In 2018 I assumed additional responsibility for Pipeline Services.

19 **Q. Please describe the scope of your present responsibilities for the**
20 **Company.**

21 A. My current major responsibilities are supervision of long and short-term
22 purchasing of gas supply, scheduling of gas purchased and sold, the

1 optimization of Duke's Natural Gas Business Unit's interstate pipeline
2 transportation, storages, and gas supply assets, and the administration of the
3 Company's approved Hedging Plan.

4 **Q. Have you previously testified before this Commission or any other**
5 **regulatory authority?**

6 A. Yes. I have testified in SC Prudence Hearings in Docket Nos. 2012-4-G,
7 2013-4-G, 2014-4-G, 2015-4-G, 2016-4-G, and 2017-4-G and in NC Annual
8 Review of Gas Cost Docket Nos. G-9, Sub 633 in 2013, G-9, Sub 653 in 2014,
9 G-9, Sub 673 in 2015, G-9, Sub 690 in 2016, and G-9, Sub 710 in 2017.

10 **Q. What is the purpose of your testimony in this proceeding?**

11 A. My testimony will describe the Company's gas purchasing policies and
12 hedging activity during the review period. This testimony is in response to
13 the Commission's directive issued in Order No. 88-294 dated April 6, 1988
14 requiring ". . . annual public hearings . . . to review the Company's . . . gas
15 purchasing policies" and in response to the Commission's Order establishing
16 pre-filing deadlines in this docket.

17 **Q. What is the period of review in this docket?**

18 A. The review period is April 1, 2017 through March 31, 2018.

19 **Q. Please explain the Company's gas purchasing policies.**

20 A. The Company has previously utilized and continues to maintain a "best cost"
21 gas purchasing policy. This policy consists of five main components, 1) the
22 price of the gas, 2) the security of the gas supply, 3) the flexibility of the gas

1 supply, 4) gas deliverability, and 5) supplier relations. As all of these
2 components are interrelated, we continue to weigh the relative importance of
3 each of these factors when developing the overall gas supply portfolio to meet
4 the needs of our customers.

5 **Q. Please describe each of the five components.**

6 A. 1) The “price of the gas” refers to the final cost of gas delivered to the
7 Company’s city gates. The majority of the Company’s supply purchases take
8 place at “pooling points” or at interconnects into the pipeline on which the
9 Company holds firm transportation capacity rights. In the case of “bundled”
10 city gate supply purchases, the Company may pay the gas supplier an all-
11 inclusive price that covers the cost of gas, fuel and transportation charges.
12 The use of storage services may add additional injection, withdrawal, and
13 related fuel charges to the city gate cost of gas. In order to accurately assess
14 prices at a comparable transaction point, the Company evaluates purchase
15 prices at the receipt point and adds the applicable fuel and transportation costs
16 associated with delivery to our pipeline city gate points.

17 2) “Security of gas supply” refers to the assurances that the supply of gas will
18 be available when required. It is imperative to maintain a high level of supply
19 security for the Company’s firm customers. Security of gas supply is less
20 important for our interruptible customers who have access to alternate fuels.
21 Fixed supply reservation fees are generally required, in addition to the
22 commodity cost of gas, in order to contract for and reserve firm gas supplies.

1 In addition, the geographic source of supply, the nature of the supplier's
2 portfolio of gas supplies, and negotiated contract terms must be considered
3 when evaluating the level of supply security. Thus, the security of gas supply
4 is interrelated with the price of gas as well as other components of the
5 Company's "best cost" purchasing policy.

6 3) "Flexibility of gas supply" refers to our ability to adjust the volume of a
7 particular supply contract as operating and market conditions change. For
8 example, the demand of firm heat-sensitive customers will vary depending on
9 the weather conditions. Interruptible customers will vary their level of
10 purchases depending on the price of alternate fuels and the demand for
11 product in their own industry. Thus, the Company must arrange a portfolio
12 of gas supplies and storage services flexible enough to meet the daily and
13 monthly "swings" in demand. Contractual "swing rights" are implemented
14 through monthly and daily elections with gas suppliers and through injections
15 into and withdrawals out of storage.

16 4) "Gas deliverability" refers to the ability to deliver the Company's gas
17 supplies at the city gate through reliable transportation and storage capacity
18 arrangements. The interstate pipeline industry has created a complex system
19 of multiple pipeline services and storage service combinations.
20 Transportation arrangements can involve *intrastate* pipeline transportation,
21 interstate pipeline transportation, interstate pipeline storage arrangements,
22 interstate pipeline lateral lines, interstate pipeline pooling services, and

1 interstate pipeline balancing and peaking services. The marketplace for
2 pipeline capacity service is limited, with little to no unused capacity available
3 during periods of high demand conditions such as extreme cold or hot weather
4 conditions. Consequently, it is important that we secure and maintain firm
5 transportation and storage capacity rights to ensure the deliverability of our
6 gas supplies to meet the design day, seasonal, and annual needs of our
7 customers. Pipeline transportation and storage capacity contracts require the
8 payment of fixed demand charges to reserve firm transportation and/or
9 storage entitlements. The Company is active in proceedings at the Federal
10 Energy Regulatory Commission (“FERC”) not only with respect to the level
11 of pipeline charges under these contracts, but also the tariff terms and
12 conditions that apply to these pipeline services.

13 5) “Supplier relations” refers to the dependability, integrity and flexibility of
14 a particular gas supplier. We contract with gas suppliers who have a
15 reputation of honoring their contractual commitments and have proven
16 themselves as reliable suppliers. Conversely, we avoid suppliers which have
17 a reputation of defaulting on contract obligations or who unilaterally interpret
18 contracts to their advantage. We prefer to deal with suppliers who are
19 constantly looking for ways to improve service and offer “win-win” solutions
20 for meeting customer needs.

21 **Q. Please describe the arrangements under which the Company purchases**
22 **gas.**

1 A. The Company purchases gas supplies under a diverse portfolio of contractual
2 arrangements with a number of gas producers and marketers. In general,
3 under the Company's firm gas supply contracts, the Company may pay
4 negotiated reservation fees for the right to reserve and call upon firm supply
5 service up to the maximum daily contract quantity (elected either on a
6 monthly or daily basis), with market-based commodity prices. These market-
7 based commodity prices, to which the Company's gas supply contracts refer,
8 are published daily and monthly in industry trade publications. These firm
9 contracts typically range in term from one month to four years. Some of these
10 contracts are for winter only (peaking or seasonal) service, summer only
11 (peaking or seasonal) service, or 365-day (annual) service. Firm gas supplies
12 are purchased for reliability and security of service. The reservation fees
13 associated with firm gas supplies may vary according to the amount of
14 flexibility built into the contract, with daily swing service generally being
15 more expensive than monthly baseload service. Generally, prior to or when
16 existing supply contracts expire, requests for proposals ("RFPs") may be sent
17 to potential suppliers, their responses evaluated, and firm gas supplies are then
18 contracted with suppliers whose proposals best fulfill the Company's "best
19 cost" purchasing policy.

20 The Company also purchases gas supplies in the spot market under contract
21 terms of one month or less. These contracts provide less supply security and,
22 as a result, the Company relies on these contracts primarily for interruptible

1 or spot markets during off-peak periods when secondary supplies are more
2 abundant and for supplemental system balancing requirements. Because of
3 the nature of spot contracts, these supplies do not command reservation fees
4 and are priced at a market rate, generally by reference to an industry index or
5 at negotiated fixed prices.

6 **Q. How does the combination of the five factors described above determine**
7 **the nature of the supply and capacity contracts under your “best cost”**
8 **policy?**

9 A. Under our “best cost” policy, we secure and maintain a supply portfolio that
10 is in balance with the requirements of our sales customers. Because our firm
11 sales customers must have secure and reliable gas supply, we meet the need
12 of our firm sales customers’ demand primarily with long-term firm supply,
13 transportation, storage, and peaking service contracts. The temperature
14 sensitivity of our firm customers necessitates that flexibility of supply and
15 storage also be provided. As mentioned earlier, firm gas supply contracts
16 demand a premium, typically in the form of fixed reservation fees. Also, firm
17 supply contracts with flexible swing service entitlements will command a
18 higher reservation fee than baseload arrangements. Because our interruptible
19 customers are more price sensitive and require less supply security, we supply
20 these customers with off-peak firm gas supply and transportation services
21 when the firm customers’ demand declines and through the purchase of gas
22 supplies in the spot market.

1 In short, before entering into any agreement to purchase gas supply, pipeline
2 transportation capacity, or storage capacity, we carefully consider the
3 requirement for the supply and weigh the five “best cost” factors (price,
4 security, deliverability, flexibility, and supplier relations). A great deal of
5 judgment is required when weighing these factors and to help us exercise this
6 judgment, we keep informed about all aspects of the natural gas industry. We
7 intervene in all major FERC proceedings involving our pipeline transporters,
8 stay in constant contact with our existing and potential suppliers, monitor gas
9 prices on a real-time basis, subscribe to industry literature, follow supply and
10 demand developments, and attend industry seminars.

11 **Q. What is your greatest challenge in applying your “best cost” gas**
12 **purchasing policy?**

13 A. Since most major gas supply decisions require a considerable degree of
14 planning and must be made a year or more in advance of service, our greatest
15 challenge is dealing with future uncertainties in a dynamic global, national,
16 and regional energy market. Future demand for gas is affected by economic
17 conditions, customer conservation efforts, weather patterns, and regulatory
18 policies. In addition, the future availability and pricing of gas supplies will
19 be affected by overall end-user demand, oil and gas exploration and
20 development, pipeline expansion and storage projects, and regulatory policies
21 and approvals.

1 **Q. Please explain the Company's position regarding the current U.S. supply**
2 **situation.**

3 A. For much of the first decade of this Century, futures pricing of natural gas
4 reflected by the NYMEX was extremely volatile. Peak pricing for futures
5 contracts occurred in July 2008 when contracts for gas to be delivered during
6 January 2009 sold for \$14.516 per dekatherm. Due to the significant
7 quantities of shale gas that have become available to the market, the cost of
8 gas in the production areas has declined dramatically. It is the Company's
9 expectation that some volatility will remain in the physical markets,
10 particularly related to force majeure type events, interstate pipeline capacity
11 markets, and/or significant changes in supply and/or demand, but that the
12 dramatic swings previously seen in the futures market are not likely to recur
13 with the same regularity or intensity so long as shale gas supplies remain
14 abundant and regulatory policies remain favorable for gas and oil exploration
15 and development. Another factor to consider in the U.S. supply situation is
16 the exportation of LNG. Approvals of LNG export terminals, applications for
17 trade with Free Trade Agreement and non-Free Trade Agreement countries,
18 and to what extent exportation may impact gas prices are being evaluated.
19 Nevertheless, market experts believe that future LNG exports would be
20 adequately served by shale supplies and that while there is a reasonable
21 expectation of an increase in gas costs, the anticipated effect is marginal.

1 **Q. Please explain the factors that the Company evaluates in determining the**
2 **pricing basis for its gas supply contracts. Please discuss the various**
3 **pricing alternatives available, such as fixed prices, monthly market**
4 **indexing and daily spot market pricing and describe how supplier**
5 **reservation charges and discounts or premiums from market prices enter**
6 **into the evaluation.**

7 A. The Company has various pricing options available to it when developing its
8 gas supply portfolio. These options include monthly market indexing, daily
9 spot pricing, and fixed pricing. Pricing for gas contracted for a term of one
10 month or longer generally refers to a monthly or daily index as published by
11 industry trade publications. Prices for daily spot deals may refer to a daily
12 index or be a negotiated fixed price.

13 The reservation fee the Company pays for each contract in its firm supply
14 portfolio is dependent upon the pricing options chosen and the supply
15 flexibility requirements associated with each contract. Reservation fees are
16 generally lower for baseload supplies (purchased at a constant volume for the
17 entire month, season or year) and higher if swing service is required.
18 Reservation fees also vary depending on the type of swing service being
19 provided. Examples of factors which affect the cost of swing service are: 1)
20 the number of days of swing required; 2) the volume of swing allowed; 3)
21 commodity pricing at first of the month indices versus daily spot pricing; 4)

1 next day versus intraday swing capabilities; and 5) location of the supply
2 being purchased.

3 The Company considers its anticipated load and swing requirements under
4 various demand scenarios, contemplates the factors listed above and makes a
5 “best cost” purchasing decision.

6 **Q. Please describe how the Company determines the daily contract quantity**
7 **of gas supplies that should be acquired through long-term contracts for**
8 **the whole year, the full winter season and periods less than a full winter**
9 **season.**

10 A. The Company purchases gas supplies on a year-round basis to fulfill its firm
11 requirements including storage injections and to minimize supply costs
12 utilized to serve firm customers. Some of these contracts will escalate in
13 volume during shoulder months (April and October) and the winter period
14 (November through March) as the Company’s firm requirements increase due
15 to higher demand, thus sculpting year-round contracts to fit seasonal needs.
16 The Company also purchases volumes for the winter period to meet its
17 forecasted Sales customers’ demand within the limits of the Company’s firm
18 transportation capacity entitlements, which increase during the winter period.
19 In addition, the Company reviews low demand scenarios to measure its ability
20 to fulfill its contractual purchase commitments with suppliers. Lastly, the
21 Company may purchase short-term city gate peaking supply to fulfill

1 additional firm obligations that exceed the Company's firm transportation
2 capacity entitlements.

3 **Q. What process does the Company employ in selecting its firm gas**
4 **suppliers?**

5 A. The Company identifies the volume and type of supply that it needs to fulfill
6 its customer demand requirements, and in general, solicits RFPs from a list of
7 suppliers that the Company continuously updates as potential suppliers enter
8 and leave the market place. The RFPs may be for firm baseload or swing
9 supply. RFPs for swing supply may be further categorized into pricing based
10 on first of the month indices or daily market indices. Swing supplies priced
11 at first of the month indices command the highest reservation fees because the
12 supplier assumes the risk associated with market volatility during the delivery
13 period. Lower reservation fees are associated with swing contracts
14 referencing a daily market index because both buyer and seller assume the
15 risk of daily market volatility. After forecasting the ultimate cost delivered
16 to the city gate for each point of supply (incorporating the forecasted cost at
17 the supply point plus pipeline fuel plus pipeline transportation fees), and
18 evaluating the cost of reservation fees associated with each type of supply and
19 its corresponding bid, the Company makes a "best cost" decision on which
20 type of supply and supplier is best suited to fulfill its needs.

21 **Q. Did the Company enter into any new supply arrangements during the**
22 **review period?**

1 A. Yes, during the review period the Company added new supply arrangements.

2 **Q. Please describe the process that the Company utilized and the market**
3 **intelligence evaluated during the review period to determine the prices**
4 **charged for secondary market sales.**

5 A. The process and information used by the Company in pricing secondary
6 market sales depends upon the location of the sale, term of the sale, the type
7 of sale, and prevailing market conditions at the time of the sale. For long-
8 term delivered sales (longer than one month), in general, the Company solicits
9 bids from potential buyers, and if acceptable, evaluates and awards available
10 volumes. For short-term transactions (daily or monthly), the Company 1)
11 monitors prices and volumes on the Intercontinental Exchange
12 (Intercontinental Exchange or “ICE” is an electronic trading platform where
13 potential buyers post bids and potential sellers post offers at various
14 locations/hubs along the interstate pipelines), 2) talks to various market
15 participants, and 3) for less liquid trading points, estimates prices based on
16 price relationships with more liquid points. The Company will also evaluate
17 the amount of supply available for sale and weigh that against current market
18 conditions in formulating its sales strategy (i.e., if the Company has a large
19 amount of supply to sell on a particular day and determines that market
20 demand is low, the Company will be more aggressive in its sales strategy).
21 The Company incorporates all these factors and then initiates its sales
22 strategy.

1 **Q. Did the Company make any changes in its gas purchasing policies or**
2 **practices during the review period?**

3 A. The Company did not implement any changes in its “best cost” gas purchasing
4 policies or practices during the review period.

5 **Q. Did the Company take any other action to reduce price volatility for its**
6 **customers?**

7 A. The Company continues to utilize the Company’s approved Hedging Plan as
8 well as storage which acts as a physical hedge to stabilize cost. The
9 Company’s Equal Payment Plan, in addition to the adjustment of the PGA
10 benchmark price and deferred gas cost accounting, also provide a smoothing
11 effect on gas prices charged to customers.

12 **Q. What were the net economic results of the Hedging Plan during the**
13 **review period?**

14 A. The Company’s South Carolina customers incurred a net economic cost of
15 \$941,030.20 (see **Exhibit__ (MBT-2)**) as a result of the Company’s approved
16 Hedging Plan during the review period which was an increase compared to
17 the last review period. This net economic impact includes the cost of
18 commissions, software, subscriptions, and a data feed and amounts to an
19 average cost per customer of roughly \$0.53 per month.

20 **Q. Did the Company’s Hedging Plan work properly during the review**
21 **period?**

1 A. Yes. The Hedging Plan accomplished its goal of providing an insurance
2 policy to reduce gas cost volatility for customers in the event of a gas price
3 fly up.

4 **Q. Has the Company made any changes to its Hedging Plan during the**
5 **review period?**

6 A. There were no changes made to the Hedging Plan during the review period.
7 The Company has and will continue to closely monitor the gas supply –
8 demand picture and will propose changes it deems necessary to its Hedging
9 Plan.

10 **Q. Please describe how compliance with the Hedging Plan is monitored.**

11 A. Currently, the Gas Accounting, Finance, and Corporate Compliance areas
12 perform ongoing activities to monitor compliance with the Hedging Plan. In
13 addition, the Company's Gas Market Risk Committee monitors compliance
14 with the Hedging Plan, as well as considers and approves any change to the
15 Hedging Plan. Periodic internal audits have and will be performed to ensure
16 that controls continue to be adequate and function as management intends.

17 **Q. Have there been any deviations from the Hedging Plan during the review**
18 **period?**

19 A. There were no deviations from the Hedging Plan during the review period.

20 **Q. Given the current low price forecast and low gas cost volatility**
21 **environment, do you think continuing to hedge under the current**
22 **Hedging Plan is prudent?**

1 A. Because the goal of the Hedging Plan is to provide insurance against gas cost
2 volatility if prices fly up, the Company feels it is prudent to incur what it
3 deems is a low-cost insurance policy and continue with the current Hedging
4 Plan. As stated previously, the cost per customer during the review period
5 was approximately \$0.53 per month. Because the current Hedging Plan only
6 contemplates the purchase of options, the cost of the Hedging Plan is
7 relatively low. As stated above, the Company has and will continue to closely
8 monitor the gas supply – demand picture and will propose changes it deems
9 necessary to its Hedging Plan.

10 **Q. What are some of the other steps the Company has taken to manage its**
11 **gas costs consistent with its “best cost” policy during the review period?**

12 A. During the past year, the Company has taken the following additional steps
13 to manage its gas costs, consistent with its “best cost” policy:

14 (1) The Company has, as more fully described in Ms. Raney’s
15 testimony, actively participated in proceedings before the FERC and other
16 regulatory agencies that could reasonably be expected to affect the
17 Company’s rates and services;

18 (2) The Company has utilized the flexibility available within its
19 supply and capacity contracts to purchase and dispatch gas, release capacity
20 and initiate secondary marketing sales in the most cost effective manner,
21 resulting in secondary market credits of \$5,767,899.67 a 1% increase,
22 compared to last year’s secondary market credits of \$5,723,156.85;

(3) The Company has actively promoted more efficient peak day use of natural gas and load growth from “year-round” markets in order to improve the Company’s load factor and reduce average unit costs.

Q. Please summarize your testimony.

A. The Company’s “best cost” purchasing policy provides ratepayers with secure and reasonably priced gas supplies to meet the requirements of its customers. This policy and the Company’s practice under this policy have been reviewed and found prudent on all occasions in South Carolina and in the other state jurisdictions in which we operate. Although we believe our policies and procedures are reasonable, we are cognizant of the fact that the natural gas industry is rapidly changing, and we are continuously monitoring our policies and procedures to keep up with, and anticipate, these changing conditions. We have and will continue to work with the Commission and ORS Staff to review current regulations and tariffs and explore possible changes that will better serve our natural gas customers in the future. We are satisfied that our existing policies and procedures are prudent and that they have produced and will continue to produce adequate amounts of secure and reasonably priced gas for our customers.

Q. Does this conclude your testimony?

A. Yes.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the attached document is being served this date via email and FedEx upon:

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This the 1st day of June, 2018.

/s/ Richard K. Goley
Richard K. Goley